

MAR 0 4 2002

TECH CENTER 1600/2900



1644

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/847,208B

DATE: 02/19/2002 TIME: 12:13:27

Input Set : A:\UC067.002A-SEQ-ID.txt

Output Set: N:\CRF3\02192002\I847208B.raw

```
4 <110> APPLICANT: Saxon, Andrew
         Zhang, Ke
         Zhu, Daocheng
 6
 8 <120> TITLE OF INVENTION: FUSION MOLECULES AND TREATMENT OF
        IGE-MEDIATED ALLERGIC DISEASES
12 <130> FILE REFERENCE: UC067.002A
14 <140> CURRENT APPLICATION NUMBER: US 09/847,208B
15 <141> CURRENT FILING DATE: 2001-05-01
17 <160> NUMBER OF SEQ ID NOS: 177
19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
                                                             ENTERED
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 696
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
26 <400> SEQUENCE: 1
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28 gggggaccgt cagtetteet etteccecca aaacccaagg acacceteat gateteecgg 120
29 acceptagg teacatgegt ggtggtggae gtgageeacg aagaceetga ggteaagtte 180
30 aactggtacg tggacggcgt ggaggtgcat aatgttaaga caaagccgcg ggaggagcag 240
31 tacaacagca cgtaccgtgt ggtcagcgtc ctcaccgtcc tgcaccagaa ctggatgaat 300
32 ggaaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 360
33 atctccaaag ccaaagtgca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg 420
34 gatgagetga ccaagaacca ggteageetg acetgeetgg teaaaggett etateeeage 480
35 gacategeeg tggagtggga gageaatggg cageeggaga acaactacaa gaccaegeet 540
36 cccgtgctgg actccgtcgg ctccttcttc ctctacagca agctcaccgt ggacaagagc 600
37 aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 660
38 taccagcaga ggagcctctc cctgtctccg ggtaaa
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 330
42 <212> TYPE: PRT
43 <213> ORGANISM: Homo sapiens
45 <400> SEOUENCE: 2
46 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
47 1
                                       10
48 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
50 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
          35
                               40
```

52 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

54 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr

56 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys

60

75

55

70

50

Input Set : A:\UC067.002A-SEQ-ID.txt
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57					85					90					95	
58	Lys	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys
59	-			100	_		_	_	105				_	110		_
60	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro
61			115				_	120					125			
62	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys
63	-	130	-	-			135			_		140				-
64	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	٧al	Lys	Phe	Asn	Trp
	145			-		150			•		155		-			160
		Val	Asp	Glv	Val		Val	His	Asn	Val		Thr	Lvs	Pro	Ara	
67	-1-			1	165					170	-1-		-1-		175	
	Glu	Gln	Tvr	Asn		Thr	Tvr	Ara	Val		Ser	Va 1	Leu	Thr		Leu
69			-1-	180	,		-1-	9	185					190		
	His	Gln	Asn		Met	Asn	Glv	Lvs	Glu	Tvr	Lvs	Cvs	Lvs		Ser	Asn
71			195				1	200		-1-	_15	4 12	205			
	Lvs	Ala		Pro	Δla	Pro	Tle		Lys	Thr	Tle	Ser		Ala	Lvs	Val
73		210	Lou	110			215	014				220		1114		, 41
	Gln		Δrα	Glu	Pro	Gln		Tur	Thr	T.011	Pro		Ser	Δrσ	Δsn	Glu
	225		9	014	110	230	· u _	- 1 -			235	110	001	9	1101	240
		Thr	T.vc	Δen	Gln		Ser	T.011	Thr	Cvc		Val	T.vc	G1v	Dho	
77	пси	1111	шуз	non	245	vai	DCI	пси	1111	250	LCu	vuı	шуз	GLY	255	- y -
	Dro	Sar	λen	Tla		Va 1	Glu	Ψrn	Glu		Δen	G1 v	Gln	Dro		Agn
79	FIO	Der	лэр	260	AIU	Vul	GIU	115	265	Der	ASII	GIY	GIII	270	GIU	ASII
	λen	Тиг	T.376		Thr	Dro	Dro	Va l	Leu	λen	Sor	Va l	Clv		Dho	Dho
81	A311	TYT	275	1111	1111	FIO	FIO	280	пец	_	Der	Val	285	per	FIIC	FIIC
	Lou	Фиг		Luc	Lou	Thr	17 a 1		Lys		λνα	Trn		Cln	Cl v	λan
83	neu	290	261	цуз	пец	1111	295	кар	пуз	261	Alg	300	GIII	GIII	СТУ	ASII
	Val		Sor	Cvc	Sor	Va 1		Uic	Glu	λla	Τ.Δ11		λen	Uic	Тυг	Gln
	305	FIIC	Ser	Cys	Der	310	Hec	1113	GIU	ліц	315	птэ	ASII	птэ	тут	320
		λνα	Cor	T.011	Sor		Sor	Dro	Gly	Tare	313					320
87	GIII	AIG	261	пец	325	шеu	PET	FIO	Gry	330						
	Z210)	דד חיי	NO:						330						
				i: 23												
		2> TY														
				SM:	Lomo	car	ione	,								
				ICE:		Jac	Tells	•								
			_			λαν	Tvc	Пhт	uic	mh~	Cvra	Dro	Dro	Crrc	Dro	ת [ת
97	1	PIO	гуѕ	ser	Cys 5	ASP	пур	1111	His	10	Cys	PIO	PIO	Cys	15	Ата
		c1.,	T 011	т он	_	C1	Dwo	Com	17n 1		T 0.11	Dho	Dmo	Dwo		Dmo
99						-			Val 25						_	PIO
																77 7
		ASL		. теп	ı met	. 116	s ser) TIII	PIC) GIU	. val		Cys	, var	. Val
101		3	35					40			.	. Dha	45			
		_) val	. ser	HIS	GIU	_	PIC) GIU	ı val	г гув		e ASI	TIL	туг	· Val
103		50			1	** ! _	55			. m1	. .	60				a 1
	-	GTŽ	, val	L GIU	ı val		ASI	ı val	г гАз	in'r	_	Pro	Arg	J GIU	ı GIU	Gln
	65			. m1.		70		**- *	. ~ .		75	m1.				80
	-	AST	ı ser	Thr	_	arg	val	_ val	. ser		. Leu	. Thr	· val	Leu		Gln
107		_		_	85	_		_	_	90	_	 -	_	_	95	
Τ08	Asr	ı ırr	Met	Asn	GLY	г гуз	GIU	і да	туя	суя	з гуз	val	. Sei	. Asn	гга	Ala

Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\1847208B.raw

```
100
109
                                    105
110 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Val Gln Pro
            115
                                120
112 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
                            135
113
        130
                                                 140
114 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                        150
116 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
117
                    165
                                        170
118 Lys Thr Thr Pro Pro Val Leu Asp Ser Val Gly Ser Phe Phe Leu Tyr
119
                180
                                    185
120 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            195
                                200
122 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Gln Gln Arg
        210
123
                            215
                                                 220
124 Ser Leu Ser Leu Ser Pro Gly Lys
125 225
                        230
128 <210> SEQ ID NO: 4
129 <211> LENGTH: 1445
130 <212> TYPE: DNA
131 <213> ORGANISM: Homo sapiens
133 <400> SEQUENCE: 4
134 tocacacaga goocatoogt ottoccottg accogotgot goaaaaacat tocotocaat 60
135 gccacctccg tgactctggg ctgcctggcc acgggctact tcccggagcc ggtgatggtg 120
136 acctgggaca caggctccct caacgggaca actatgacct taccagccac cacctcacg 180
137 ctctctggtc actatgccac catcagcttg ctgaccgtct cgggtgcgtg ggccaagcag 240
138 atgttcacct gccgtgtggc acacactcca tcgtccacag actgggtcga caacaaaacc 300
139 ttcaqcqtct qctccaqqqa cttcaccccq cccaccqtqa aqatcttaca qtcqtcctqc 360
140 gacqqqqqq qqcacttccc cccqaccatc cagctcctgt qcctcqtctc tgqqtacacc 420
141 ccaqqqacta tcaacatcac ctqqctqqaq qacqqqcaqq tcatqqacqt qqacttqtcc 480
142 acceptcta ccacecagga gggtgagetg gcctccacac aaagcgaget caccetcage 540
143 cagaagcact ggctgtcaga ccgcacctac acctgccagg tcacctatca aggtcacacc 600
144 tttgaggaca gcaccaagaa gtgtgcagat tccaacccga gaggggtgag cgcctaccta 660
145 agcoggocca gooogttoga cotqttoato ogcaagtogo coacgatoac otqtotggtg 720
146 gtggacctgg cacccagcaa ggggaccgtg aacctgacct ggtcccgggc cagtgggaag 780
147 cctgtgaacc actccaccag aaaggaggag aagcagcgca atggcacgtt aaccgtcacg 840
148 tecaceetge eggtgggeae eegagaetgg ategaggggg agacetaeea gtgeagggtg 900
149 acceaecce acctgeecag ggeecteatg eggteeacga ecaagaceag eggeeegegt 960
150 gctgccccgg aagtctatgc gtttgcgacg ccggagtggc cggggagccg ggacaagcgc 1020
151 accetegeet geetgateea gaactteatg cetgaggaea teteggtgea gtggetgeae 1080
152 aacgaggtgc agctcccgga cgcccggcac agcacgacgc agccccgcaa gaccaagggc 1140
153 teeggettet tegtetteag eegeetggag gtgaceaggg eegaatggga geagaaagat 1200
154 gagttcatct gccgtgcagt ccatgaggca gcgagcccct cacagaccgt ccagcgagcg 1260
155 gtgtctgtaa atcccggtaa atgacgtact cctgcctccc tccctcccag ggctccatcc 1320
156 agetgtgcag tggggaggae tggccagace ttetgtecae tgttgcaatg acceeaggaa 1380
157 gctaccccca ataaactqtq cctqctcaga gccccaqtac acccattctt qqqaqcqqqc 1440
158 agggc.
                                                                       1445
160 <210> SEO ID NO: 5
161 <211> LENGTH: 427
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Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\1847208B.raw

162	<21	2> T	YPE:	PRT												
163	<213> ORGANISM:			Homo sapiens												
	<400> SEQUENCE:			5												
166	Ser	Thr	Gln	Ser	Pro	Ser	Val	Phe	Pro	Leu	Thr	Arg	Cys	Cys	Lys	Asn
167					5					10					15	
168	Ile	Pro	Ser	Asn	Ala	Thr	Ser	Val	Thr	Leu	Gly	Cys	Leu	Ala	Thr	Gly
169				20					25					30		
170	Tyr	Phe	Pro	Glu	Pro	Val	Met	Val	Thr	Trp	Asp	Thr	Gly	Ser	Leu	Asn
171			35					40					45			
172	Gly	Thr	Thr	Met	Thr	Leu	Pro	Ala	Thr	Thr	Leu	Thr	Leu	Ser	Gly	His
173	50						55					60				
174	Tyr	Ala	Thr	Ile	Ser	Leu	Leu	Thr	Val	Ser	Gly	Ala	\mathtt{Trp}	Ala	Lys	Gln
175						70					75					80
	Met	Phe	Thr	Cys	Arg	Val	Ala	His	Thr	Pro	Ser	Ser	Thr	Asp	${\tt Trp}$	Val
177					85					90					95	
	Asp	Așn	Lys		Phe	Ser	Val	Cys	Ser	Arg	Asp	Phe	Thr	Pro	Pro	Thr
179				100					105					110		
	Val	Lys		Leu	Gln	Ser	Ser	_	Asp	Gly	Gly	Gly		Phe	Pro	Pro
181			115					120					125			
	Thr		Gln	Leu	Leu	Cys		Val	Ser	Gly	Tyr		Pro	Gly	Thr	Ile
183		130					135					140				
		Ile	Thr	\mathtt{Trp}	Leu		Asp	Gly	Gln	Val						
	145					150										160
	Thr	Ala	Ser	Thr		Gln	Glu	Gly	Glu		Ala	Ser	Thr	Gln		Glu
187					165					170					175	_
	Leu	Thr	Leu		Gln	Lys	His	Trp	Leu	Ser	Asp	Arg		_	Thr	Cys
189		.	_,	180			•		185		_	_		190	_	_
		Val		Tyr	GIn	GLY	His		Phe	Glu	Asp	Ser		Lys	Lys	Cys
191		3	195	•		•	0 1	200	a		m	.	205		D	G
			ser	Asn	Pro	Arg		val	Ser	Ата	туг		ser	Arg	Pro	ser
193		210	7 ~~	T 0	Dha	T1.	215	T 0	Com	Dwo	mh se	220	mh	a	т о	77.0.7
	225	Pile	ASP	ьеи	Pne	230	AIG	гуу	Ser	PIO	235	TIE	TIIT	Cys	ьеи	240
		λαη	Lou	7 l n	Dro		T 77.0	C1**	mb x	Va I		T 011	mh.~	T xx	Cor	
197	vai	ASP	ьеu	нта	245	ser	ьуѕ	GTĀ	Thr	250	ASII	пеп	THE	TTD	255	ALG
	λΙລ	Car	G1v	Luc		Va l	λen	uic	Ser		λκα	Tare	Clu	Clu		Gln
199	AIU	SCI	Gry	260	110	Vul	поп	1113	265	1111	ALG	цуз	GIU	270	цуз	GIII
	Δτα	Δen	Glv		T.011	Thr	Val	Thr	Ser	Thr	T.011	Dro	Val		Thr	Δτα
201	9	11011	275		1JC u	1 11 L	Vul	280		1114	шси	110	285	OL,	1111	1119
	Asp	Trn		Glu	Glv	Glu	Thr		Gln	Cvs	Ara	Val		His	Pro	His
203		290			011	010	295	-1-	02	0,15	5	300				
	Leu		Arσ	Ala	Len	Met		Ser	Thr	Thr	Lvs		Ser	Glv	Pro	Ara
	305		9			310	9	001	****		315		001			320
		Ala	Pro	Glu	Val		Ala	Phe	Ala	Thr		Glu	Trp	Pro	Glv	
207					325	-1-				330			P		335	
	Ara	Asp	Lvs	Ara		Leu	Ala	Cvs	Leu		G]n	Asn	Phe	Met		Glu
209	ر	F	-1-	340				-1-	345					350		-
	Asp	Ile	Ser		Gln	Trp	Leu	His	Asn	Glu	Val	Gln	Leu		Asp	Ala
211	•		355					360					365		- 1	

Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\1847208B.raw

```
212 Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly Ser Gly Phe Phe
                             375
214 Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp Glu Gln Lys Asp
215 385
                        390
                                             395
216 Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser Pro Ser Gln Thr
                    405
                                         410
218 Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
                420
219
222 <210> SEQ ID NO: 6
223 <211> LENGTH: 320
224 <212> TYPE: PRT
225 <213> ORGANISM: Homo sapiens
227 <400> SEQUENCE: 6
228 Phe Thr Pro Pro Thr Val Lys Ile Leu Gln Ser Ser Cys Asp Gly Gly
                                         10
230 Gly His Phe Pro Pro Thr Ile Gln Leu Leu Cys Leu Val Ser Gly Tyr
232 Thr Pro Gly Thr Ile Asn Ile Thr Trp Leu Glu Asp Gly Gln Val Met
            35
                                 40
234 Asp Val Asp Leu Ser Thr Ala Ser Thr Thr Gln Glu Gly Glu Leu Ala
236 Ser Thr Gln Ser Glu Leu Thr Leu Ser Gln Lys His Trp Leu Ser Asp
238 Arg Thr Tyr Thr Cys Gln Val Thr Tyr Gln Gly His Thr Phe Glu Asp
240 Ser Thr Lys Lys Cys Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr
                100
242 Leu Ser Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr
                                120
                                                     125
            115
244 Ile Thr Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn
        130
                            135
                                                 140
246 Leu Thr Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg
                        150
                                             155
248 Lys Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu
                                         170
250 Pro Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg
                                     185
252 Val Thr His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys
253
                                200
254 Thr Ser Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro
256 Glu Trp Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln
                        230
                                             235
258 Asn Phe Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val
259
                    245
                                         250
260 Gln Leu Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys
                260
                                    265
262 Gly Ser Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu
263
                                280
                                                     285
```

Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/847,208B

DATE: 02/19/2002 TIME: 12:13:29

Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\I847208B.raw

L:3091 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:3134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:3471 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93
L:3473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93
L:3488 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94
L:4523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126
L:6231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176
L:6233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176
L:6248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177
L:6250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177